

$h_{i,j}^{(t+1)} = \frac{h_{i,j}^{(t)}}{1 + \exp(-\frac{h_{i,j}^{(t)}}{h_{i,j}^{(t)} + h_{i,j}^{(t+1)}})}$  if  $h_{i,j}^{(t)} \neq 0$   
 $h_{i,j}^{(t+1)} = 0$  if  $h_{i,j}^{(t)} = 0$

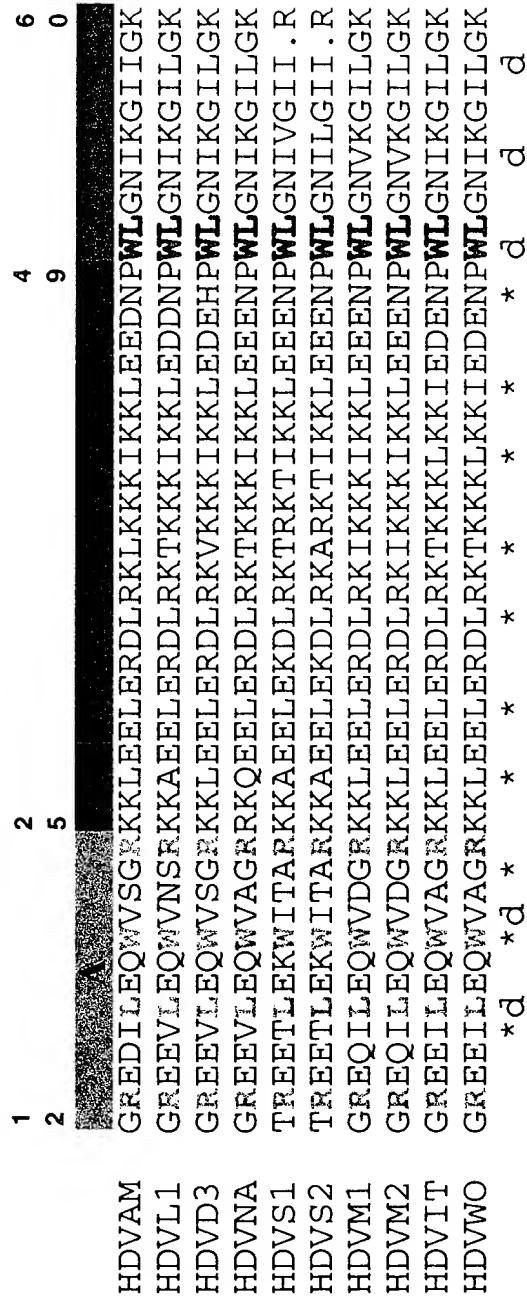


Figure 1

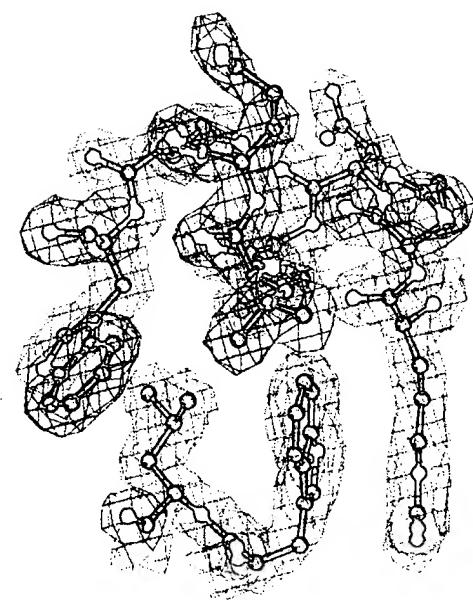
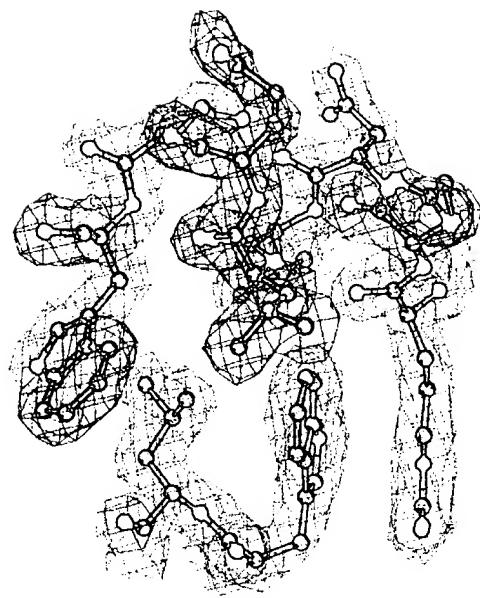
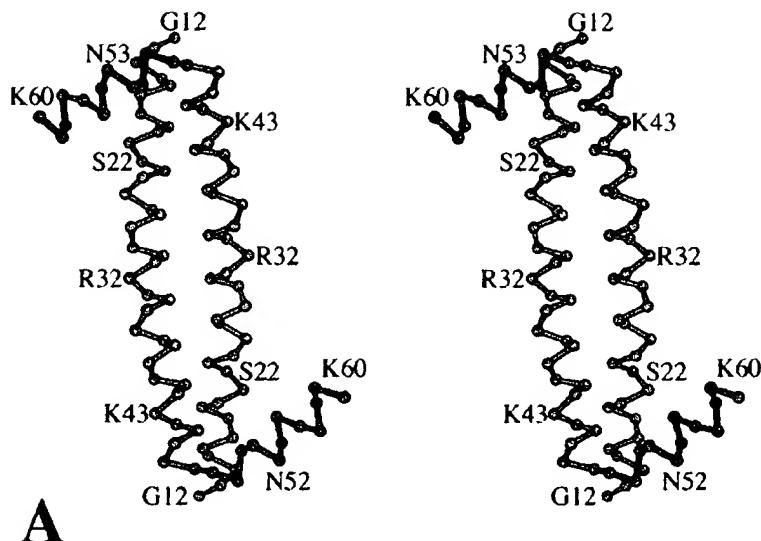


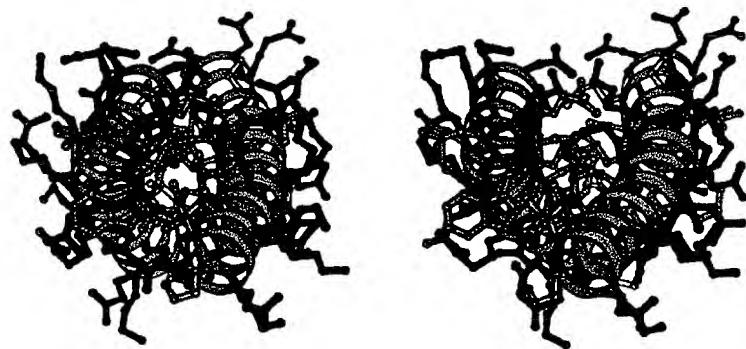
Figure 2

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**A**

Figure 3A



**B**

Figure 3B

12 48  
gabcdefgabcdefgabcdefgabcdefgabcdefga  
GREDILEQWVSGRKKLEELERDLRKLKKKIKKLEEDN  
NDEELKKIKKKLKRLDRELEELKKRGSVWQELIDERG  
agfedcbagfedcbagfedcbagfedcbagfedcbag

48

12

Figure 3C

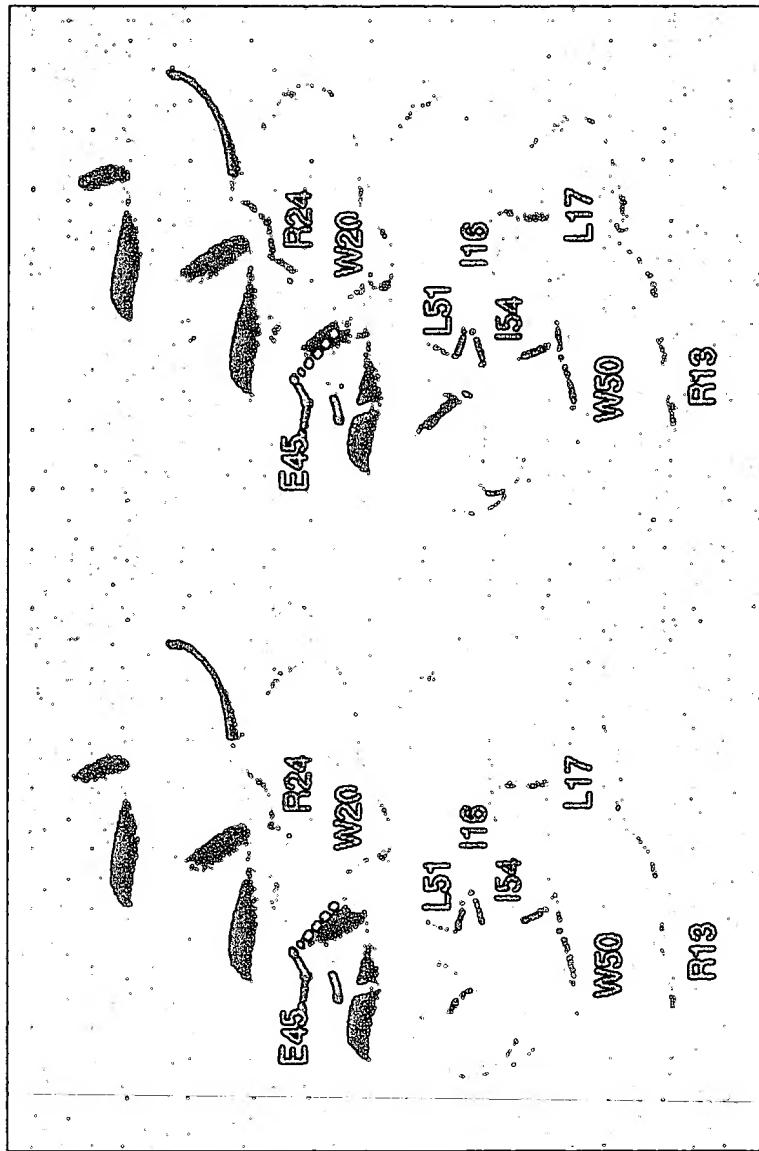


Figure 4

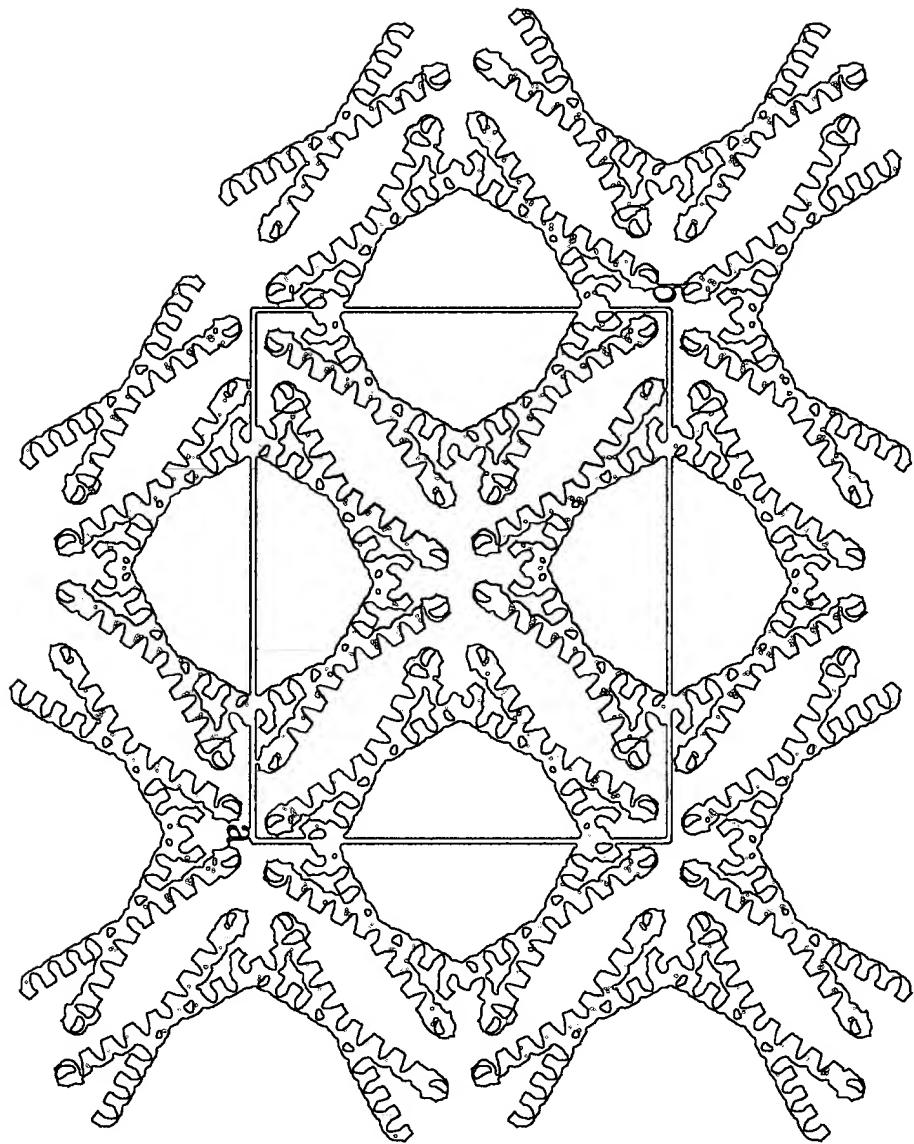


Figure 5

Fig. 6. *Leucaspis* sp. (Hym., Encyrtidae) on *Acacia* sp. (Fab., Mimosoideae). *Leucaspis* sp. were collected from *Acacia* sp. in the field. The figures show the morphology of the species.

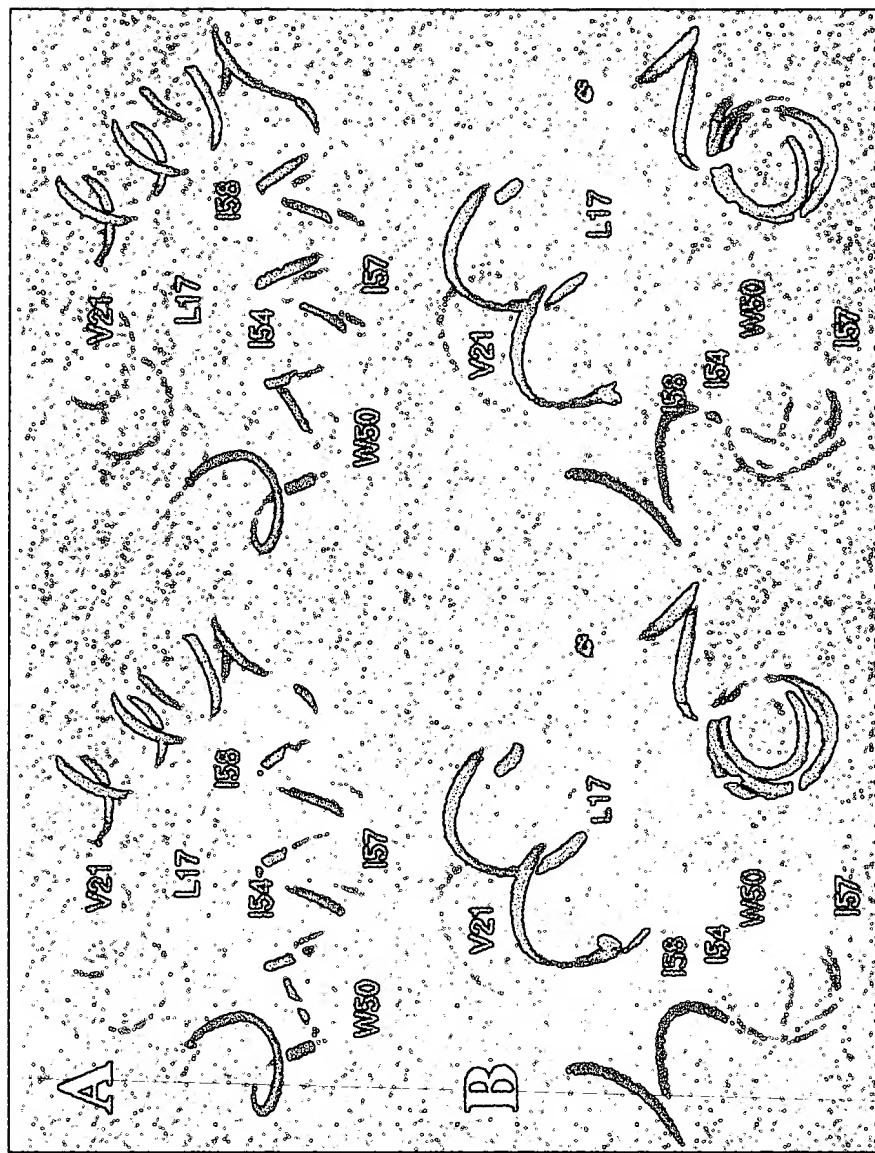


Figure 6A

Figure 6B

$\hat{u}_{i,j,k}^{(t+1)}$   $\hat{u}_{i,j,k}^{(t)}$   $\hat{u}_{i,j,k}^{(t-1)}$   $\hat{u}_{i,j,k}^{(t-2)}$   $\hat{u}_{i,j,k}^{(t-3)}$   $\hat{u}_{i,j,k}^{(t-4)}$   $\hat{u}_{i,j,k}^{(t-5)}$   $\hat{u}_{i,j,k}^{(t-6)}$   $\hat{u}_{i,j,k}^{(t-7)}$   $\hat{u}_{i,j,k}^{(t-8)}$   $\hat{u}_{i,j,k}^{(t-9)}$   $\hat{u}_{i,j,k}^{(t-10)}$   $\hat{u}_{i,j,k}^{(t-11)}$   $\hat{u}_{i,j,k}^{(t-12)}$   $\hat{u}_{i,j,k}^{(t-13)}$   $\hat{u}_{i,j,k}^{(t-14)}$   $\hat{u}_{i,j,k}^{(t-15)}$   $\hat{u}_{i,j,k}^{(t-16)}$   $\hat{u}_{i,j,k}^{(t-17)}$   $\hat{u}_{i,j,k}^{(t-18)}$   $\hat{u}_{i,j,k}^{(t-19)}$   $\hat{u}_{i,j,k}^{(t-20)}$   $\hat{u}_{i,j,k}^{(t-21)}$   $\hat{u}_{i,j,k}^{(t-22)}$   $\hat{u}_{i,j,k}^{(t-23)}$   $\hat{u}_{i,j,k}^{(t-24)}$   $\hat{u}_{i,j,k}^{(t-25)}$   $\hat{u}_{i,j,k}^{(t-26)}$   $\hat{u}_{i,j,k}^{(t-27)}$   $\hat{u}_{i,j,k}^{(t-28)}$   $\hat{u}_{i,j,k}^{(t-29)}$   $\hat{u}_{i,j,k}^{(t-30)}$   $\hat{u}_{i,j,k}^{(t-31)}$   $\hat{u}_{i,j,k}^{(t-32)}$   $\hat{u}_{i,j,k}^{(t-33)}$   $\hat{u}_{i,j,k}^{(t-34)}$   $\hat{u}_{i,j,k}^{(t-35)}$   $\hat{u}_{i,j,k}^{(t-36)}$   $\hat{u}_{i,j,k}^{(t-37)}$   $\hat{u}_{i,j,k}^{(t-38)}$   $\hat{u}_{i,j,k}^{(t-39)}$   $\hat{u}_{i,j,k}^{(t-40)}$   $\hat{u}_{i,j,k}^{(t-41)}$   $\hat{u}_{i,j,k}^{(t-42)}$   $\hat{u}_{i,j,k}^{(t-43)}$   $\hat{u}_{i,j,k}^{(t-44)}$   $\hat{u}_{i,j,k}^{(t-45)}$   $\hat{u}_{i,j,k}^{(t-46)}$   $\hat{u}_{i,j,k}^{(t-47)}$   $\hat{u}_{i,j,k}^{(t-48)}$   $\hat{u}_{i,j,k}^{(t-49)}$   $\hat{u}_{i,j,k}^{(t-50)}$   $\hat{u}_{i,j,k}^{(t-51)}$   $\hat{u}_{i,j,k}^{(t-52)}$   $\hat{u}_{i,j,k}^{(t-53)}$   $\hat{u}_{i,j,k}^{(t-54)}$   $\hat{u}_{i,j,k}^{(t-55)}$   $\hat{u}_{i,j,k}^{(t-56)}$   $\hat{u}_{i,j,k}^{(t-57)}$   $\hat{u}_{i,j,k}^{(t-58)}$   $\hat{u}_{i,j,k}^{(t-59)}$   $\hat{u}_{i,j,k}^{(t-60)}$   $\hat{u}_{i,j,k}^{(t-61)}$   $\hat{u}_{i,j,k}^{(t-62)}$   $\hat{u}_{i,j,k}^{(t-63)}$   $\hat{u}_{i,j,k}^{(t-64)}$   $\hat{u}_{i,j,k}^{(t-65)}$   $\hat{u}_{i,j,k}^{(t-66)}$   $\hat{u}_{i,j,k}^{(t-67)}$   $\hat{u}_{i,j,k}^{(t-68)}$   $\hat{u}_{i,j,k}^{(t-69)}$   $\hat{u}_{i,j,k}^{(t-70)}$   $\hat{u}_{i,j,k}^{(t-71)}$   $\hat{u}_{i,j,k}^{(t-72)}$   $\hat{u}_{i,j,k}^{(t-73)}$   $\hat{u}_{i,j,k}^{(t-74)}$   $\hat{u}_{i,j,k}^{(t-75)}$   $\hat{u}_{i,j,k}^{(t-76)}$   $\hat{u}_{i,j,k}^{(t-77)}$   $\hat{u}_{i,j,k}^{(t-78)}$   $\hat{u}_{i,j,k}^{(t-79)}$   $\hat{u}_{i,j,k}^{(t-80)}$   $\hat{u}_{i,j,k}^{(t-81)}$   $\hat{u}_{i,j,k}^{(t-82)}$   $\hat{u}_{i,j,k}^{(t-83)}$   $\hat{u}_{i,j,k}^{(t-84)}$   $\hat{u}_{i,j,k}^{(t-85)}$   $\hat{u}_{i,j,k}^{(t-86)}$   $\hat{u}_{i,j,k}^{(t-87)}$   $\hat{u}_{i,j,k}^{(t-88)}$   $\hat{u}_{i,j,k}^{(t-89)}$   $\hat{u}_{i,j,k}^{(t-90)}$   $\hat{u}_{i,j,k}^{(t-91)}$   $\hat{u}_{i,j,k}^{(t-92)}$   $\hat{u}_{i,j,k}^{(t-93)}$   $\hat{u}_{i,j,k}^{(t-94)}$   $\hat{u}_{i,j,k}^{(t-95)}$   $\hat{u}_{i,j,k}^{(t-96)}$   $\hat{u}_{i,j,k}^{(t-97)}$   $\hat{u}_{i,j,k}^{(t-98)}$   $\hat{u}_{i,j,k}^{(t-99)}$   $\hat{u}_{i,j,k}^{(t-100)}$

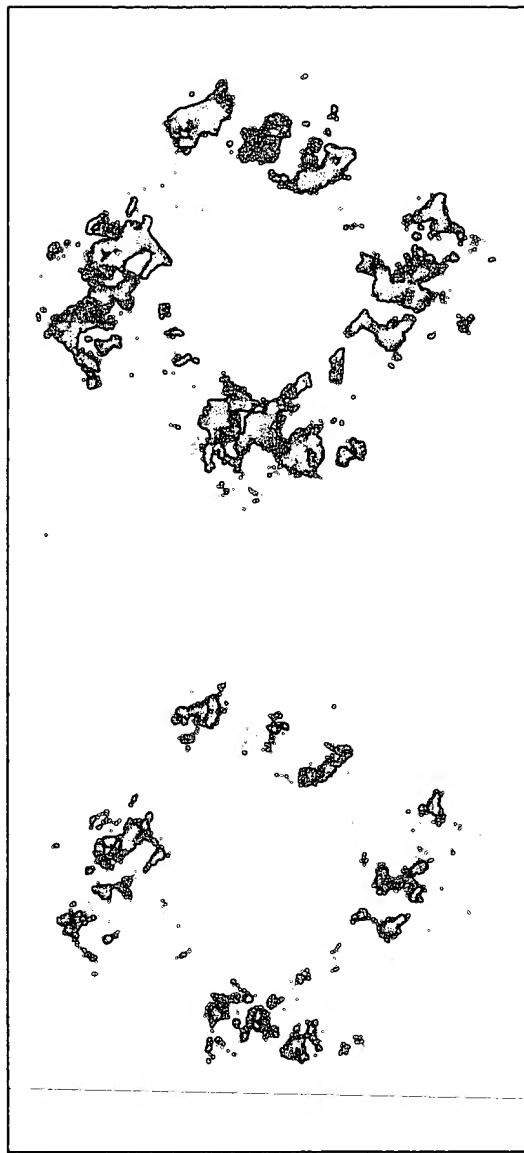


Figure 7A

Figure 7B

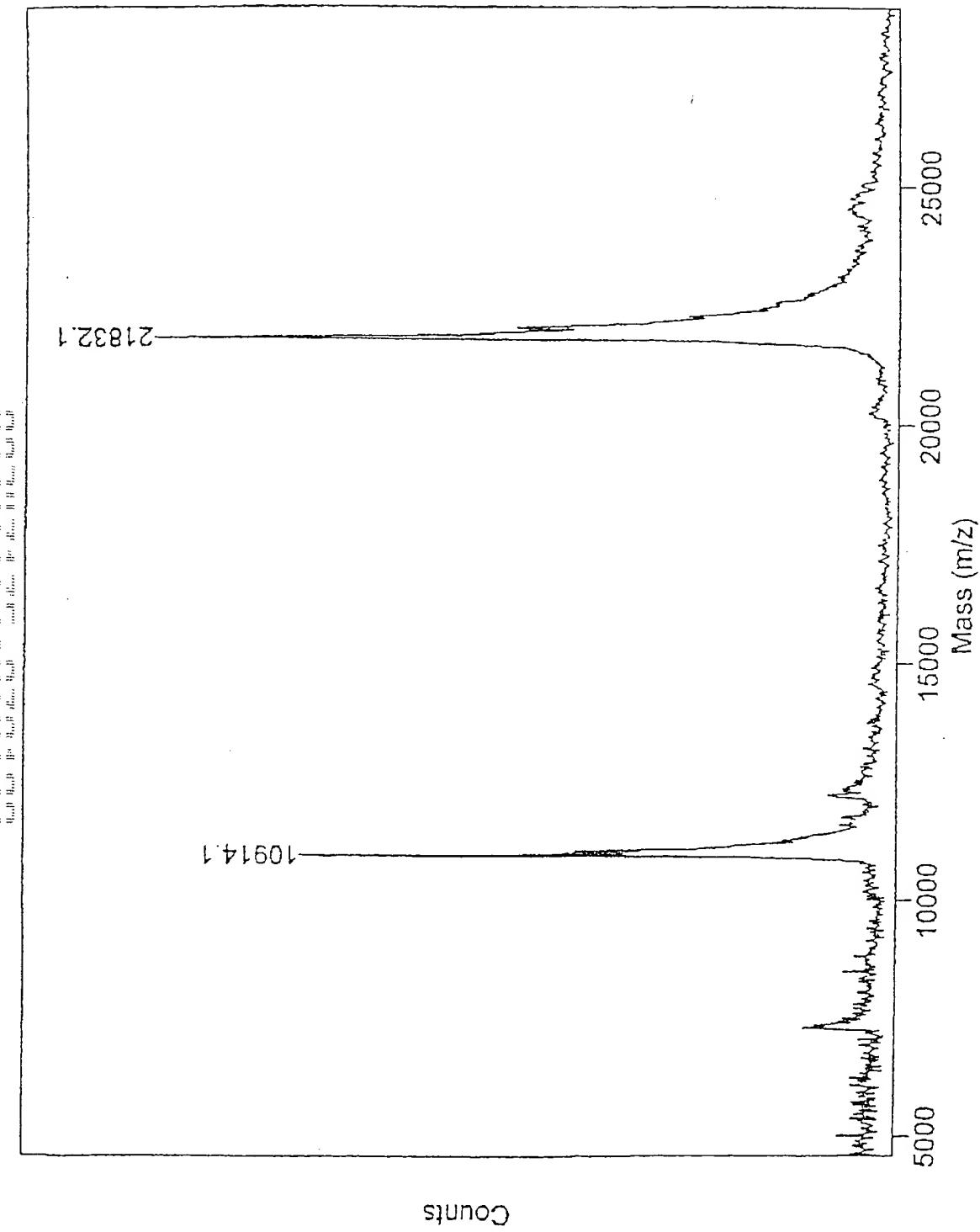


FIGURE 8A

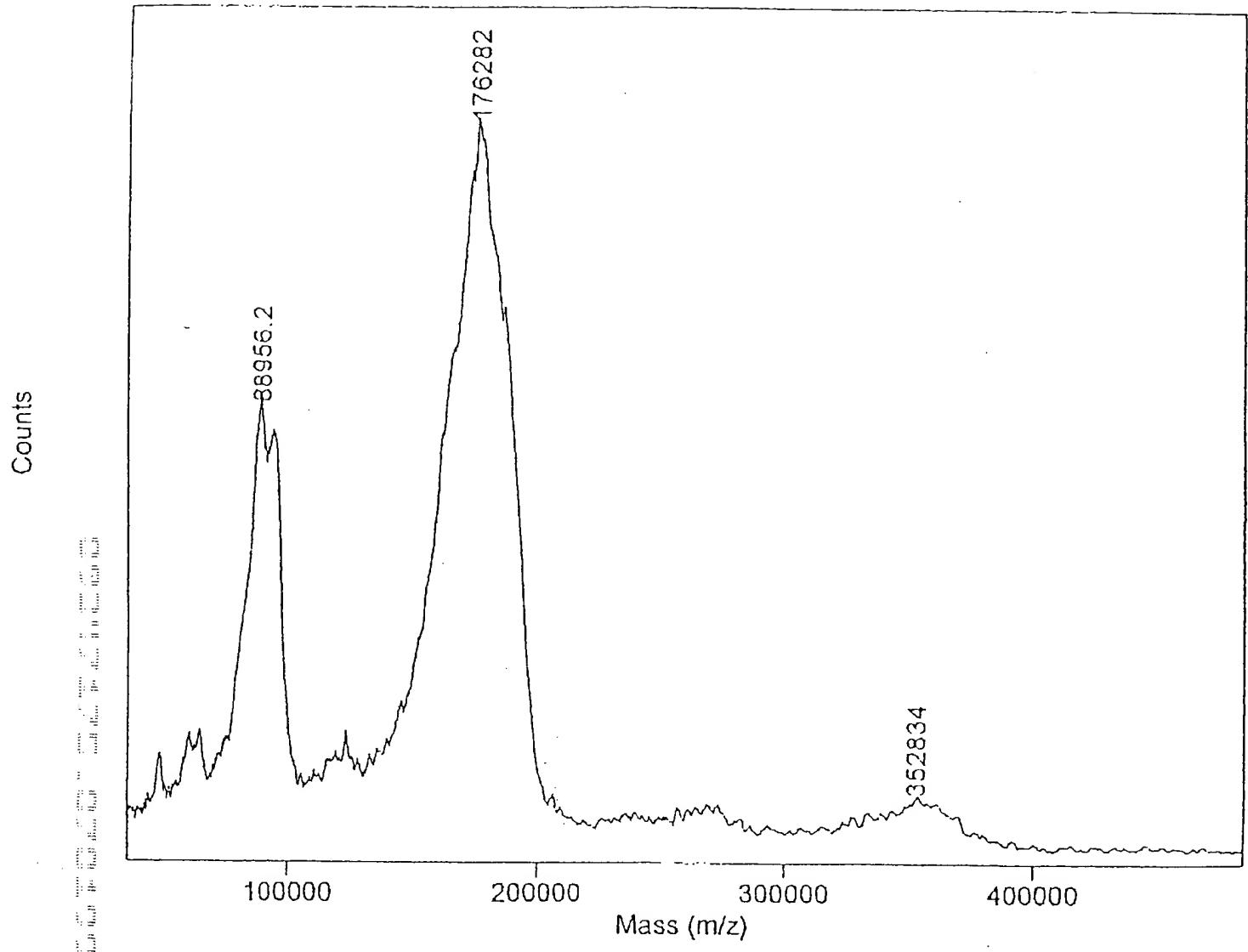


FIGURE 8B

*NdeI*

M S R S E R R K D R G G R E D I L E  
GGGCATATGAGCCGTAGCGAACCTCGTAAAGATCTGGGCGCGTGAAGATAATTCTGAA  
CCCGTATACTCGGCATCGCTTGCAGCATTTCTAGAACCGCCGGCACTTCTATAAGACCT

Q W V S G R K K L E E L E R D L R K L K  
CAGTGGTGAACGGGGCTTAAGAACGAAATTGGAACGTGATCTCGTAAACTGAAA  
GTCACCCACTCGCCGGATTCTCAATCTCCTTAACCTTGCACTAGACGCATTGACTTT

K K I K K L E E D N P W L G N I K G I I  
AAGAAGATAAAGAAACTGGAAGAAGATAACCCCTGGTTGGGTAATATAAAGGCATTATT  
TTCTTCTAATTCTTGAACCTCTCTATGGCACCAACCCATTATAATTCCGTAATAA

G K K D K D G E G A P P A K K L R M D Q  
GGCAAGAAAGATAAAGATGGCGAAGGGCGCCGGCGAAGAAAATCGGTATGGATCAG  
CCGTTCTTCTATTCTACCGCTTCCGGCGGGCGCTTCTTGACGCATAACCTAGTC

M E I D A G P R K R P L R G G F T D K E  
ATGGAAATTGATGCGGGCCCGCTAAACGTCCCGTGCCTGGGGCTTACCGATAAGGAA  
TACCTTTAACTACGCCGGCGCATTTGCAAGGGACGCACCCCGAAATGGCTATTCTT

R Q D H R R R K A L E N K R K Q L S S G  
CGTCAGGACCATCGTCGTAAAGCGCTGGAAACAAACGTAAACAGCTGAGCAGCGC  
GCAGTCTGGTAGCAGCAGCATTTCCGACCTTTGCTTGCATTGTCGACTCGTCGCG

G K S L S R E E E E L K R L T E E D E  
GGCAAATCTCTGAGCCGTGAAGAAGAAGAACGAACTGAAACCGTCTGACCAGAAGATGAA  
CCGTTAGAGACTCGGACTTCTCTTCTTGACTTTGCAAGACTGGCTTCTACTT

K R E R R I A G P S V G G V N P L E G G  
AAACGTGAACGTCTGAGGGCTCATCTGTTGGTGTGAACCCGCTGGAAAGGCC  
TTTGCACCTCCAGCATAACGTCCAGGTAGACAACACCACACTTGGCGACCTTCCGCG

S R G A P G G G F V P S M Q G V P E S P  
AGCCGTGGTGCACCGGGCGGTGGCTTGTGCCGTATGCAAGGTGTTCCAGAAAGCCCG  
TCGGCACCACTGGCCCCCACCAGAAACACGGCAGATAACGTCTCCACAAGGTCTTCCGGC

F A R T G E G L D I R G S Q G F P NcoI  
TTTGGCGTACCGCGAAGGCCCTGGATATTCTGTTGGCAGCCAGGGCTTCCGTAAACCATGGCG  
AAACGCGCATGGCGCTCCGGACCTATAAGCACCGTGGTCCGAAAGGCATTGGTACCCGG

Figure 9

the *Archaeopteryx* is a bird, and that it is a bird of the *Archaeopteryx* is a bird.

Figure 10

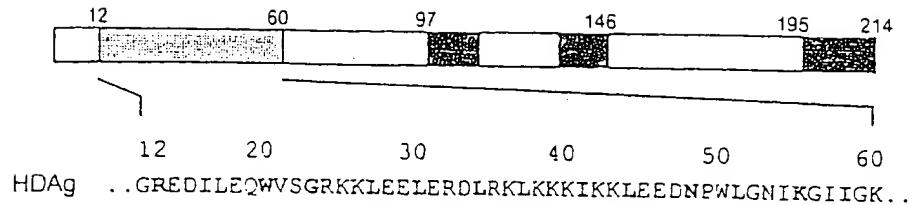


Figure 11A

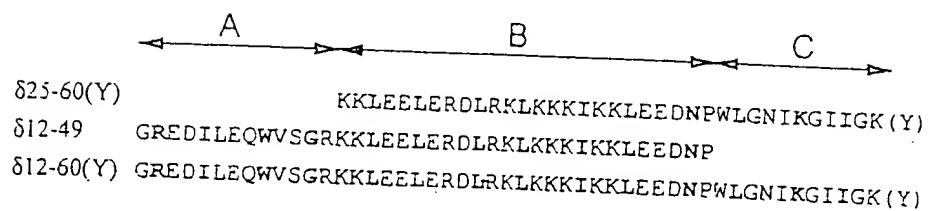


Figure 11B

Figure 12A

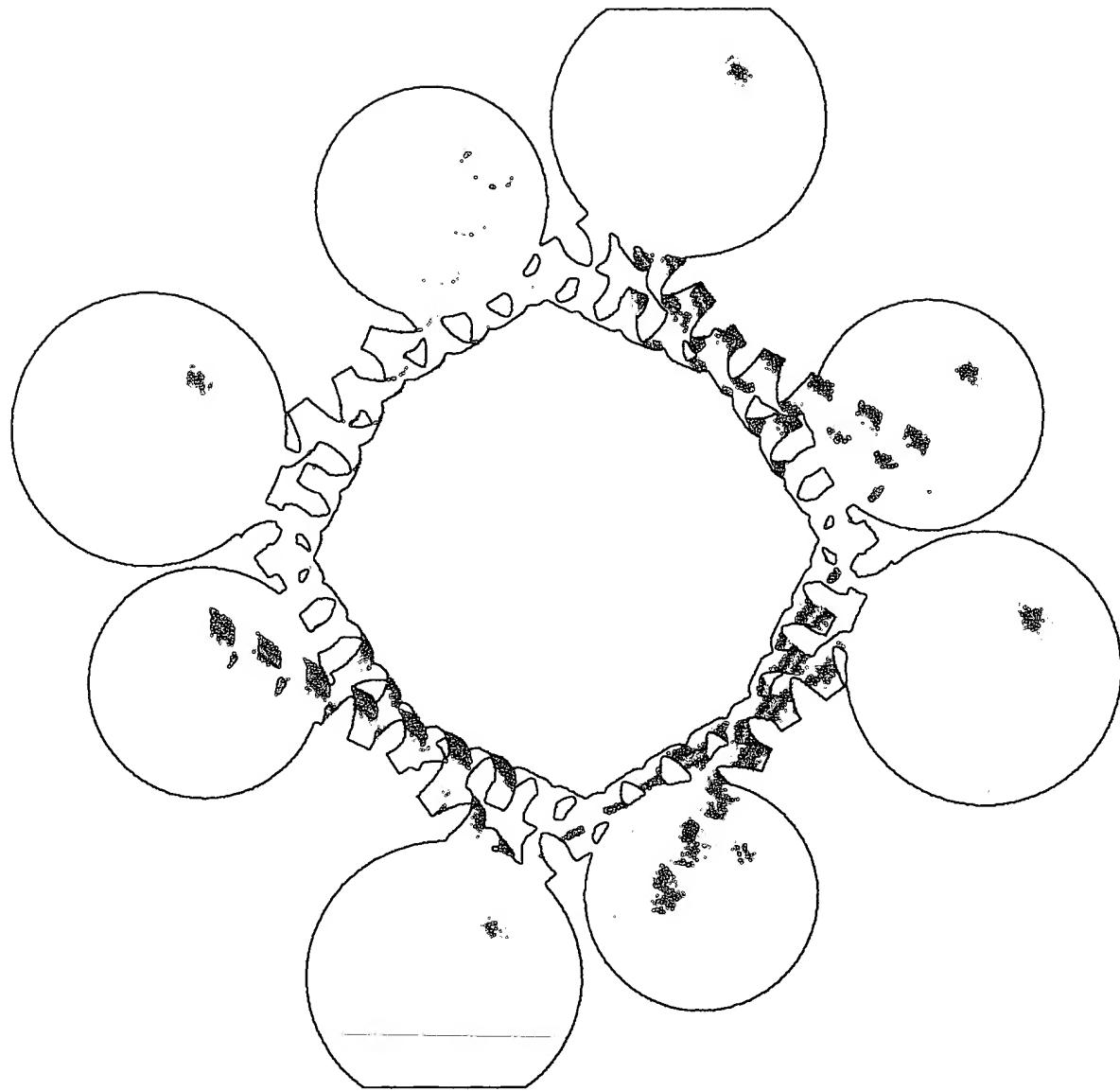


Figure 12A

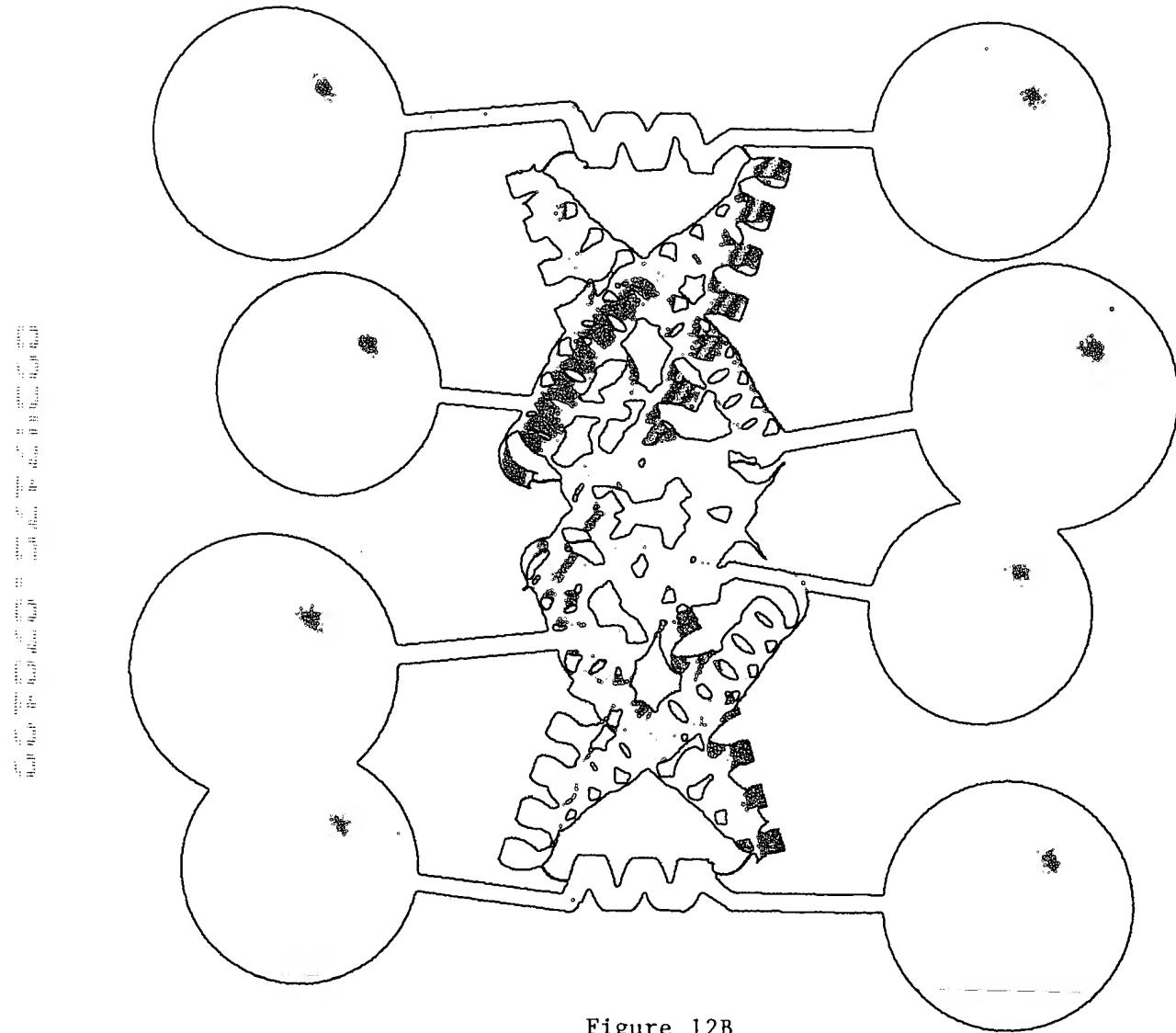


Figure 12B

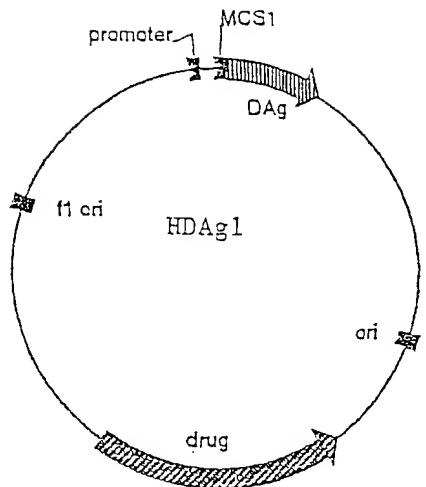


Figure 13a

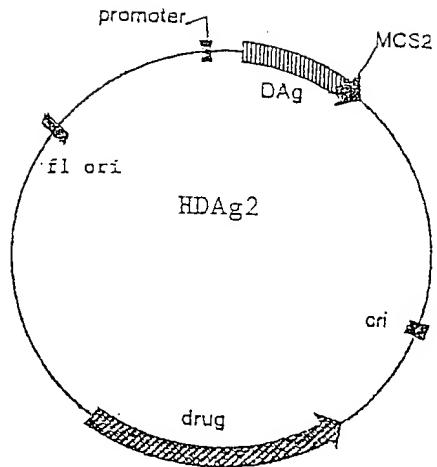


Figure 13b

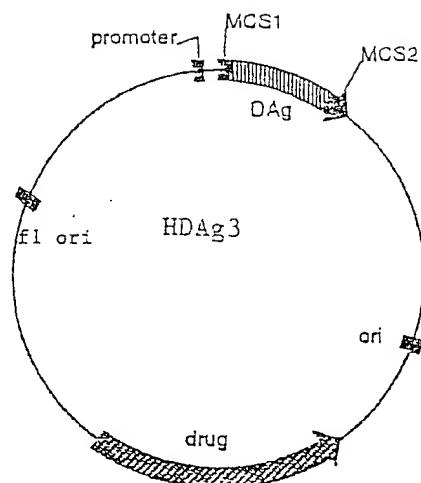


Figure 13c

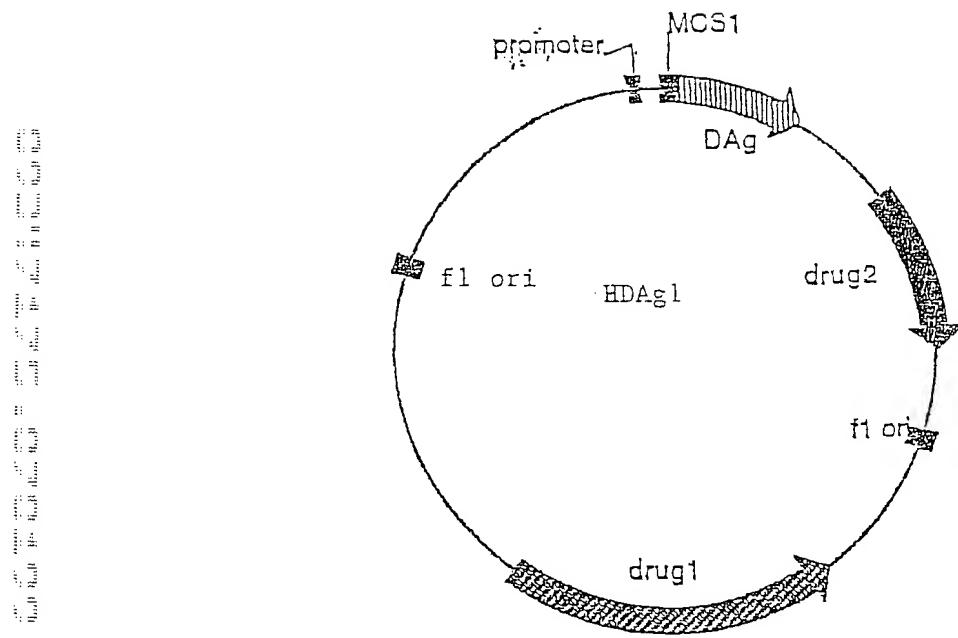


Figure 14

synthetic ORF	1	50
wildtype ORF	ATGAGCCGta gCGAAcGtcG tAAAGAtCGt GGcGGccGtG AAGAtATtCT	
Identity	ATGAGCCGgt cCGAAaGaaG gAAAGAcCGc GGgGGgaGgG AAGAcATcCT	
	ATGAGCCG-- -CGAA-G--G -AAAGA-CG- GG-GG--G-G AAGA-AT-CT	
synthetic ORF	51	100
wildtype ORF	GTGAGCCGcc GtAAGAAAGTT AGAGGAAtTg GAacGtGAtC	
Identity	CGAgCAGTGG CTGAGCCGaa GaaAAGAAAGTT AGAGGAACtC GAGaGaGAcC	
	-GA-CAGTGG GTGAGCCG-- G-AAGAAGTT AGAGGAA-T- GA--G-GA-C	
synthetic ORF	101	155
wildtype ORF	TgCGtAAact gAAaAAGAAg ATtAAGAAAC' TgGAaGAAGA tAAcCCGTGG	
Identity	TcCGgAAgtt aAAgAAGAAa ATcAAAGAAAC TaGAgGAAGA cAAatCCcTGG	
	T-CG-AA--T -AA-AAGAA- AT-AAGAAAC T-GA-GAAGA -AA-CC-TGG	
synthetic ORF	151	205
wildtype ORF	tTGGGtAAAtA TtAAAGGcAT tATtGGcAAG AAaGATAAaG ATGGcGAaGG	
Identity	cTGGGAAACA TcAAAGGaaAT aATcGGaAAG AAqGATAAAGG ATGGaGAgGG	
	-TGGG-AA-A T-AAAGG-AT -AT-GG-AAG AA-GATAA-G ATGG-GA-GG	
synthetic ORF	201	255
wildtype ORF	cCGcCCgCCG GCGAAGAAaC TgCGtATGGA tCAGATGGAA ATtGAtGCgG	
Identity	gGCaCCcCCG GCGAAGAAgC TcCGgATGGA cCAGATGGAg ATaGAcGCcG	
	-GC-CC-CCG GCGAAGAA-C T-CG-ATGGA -CAGATGGA- AT-GA-GC-G	
synthetic ORF	251	305
wildtype ORF	GcccGcGtAA acGtCCgCTg cGtGGcGGcT TtACCGAtAA GGAacGtCAG	
Identity	GaCCtAAGAA gaGgCCtCTc aGgGGaGGaT TcACCGAcAA GGAgGgGAG	
	G-CC--G-AA --G-CC-CT- -G-GG-GG-T T-ACCGA-AA GGA--G-CAG	
synthetic ORF	301	355
wildtype ORF	GACCAtCGtC GtcGtAAaGC gCTgGAaAAAC AAacGtAAaC AGCTgagcag	
Identity	GATCACCGaC GaaGgAAgGC cCTcGAgAAC AAgaGgAAgC AGCTatcgta	
	GA-CA-CG-C G--G-AA-GC -CT-GA-AAC AA--G-AA-C AGCT-----	
synthetic ORF	351	405
wildtype ORF	cGGcGGcAAa tctCTgAGCc GtGAaGAaGA AGAAgAACTg AAacGtCTGA	
Identity	gGGGGGAAg agcCTcAGCa GgAgGAgGA AGAGGAACt AAgaGgtTGA	
	-GG-GG-AA- ---CT-AGC- G-GA-GA-GA AGA-GAACT- AA--G--TGA	
synthetic ORF	401	455
wildtype ORF	CCGAaGAAGA tGAaAAAcGt GAAcGtcGtA TtGCaGGtCC aTCtGTTGGt	
Identity	CCGAGGAAGA cGAGAAAAG GAAaGaaGaA TaGCcGGcCC gTCgGTTGGg	
	CCGA-GAAGA -GA-AAA-G- GAA-G--G-A T-GC-GG-CC -TC-GTTGG-	
synthetic ORF	451	505
wildtype ORF	GGTGTGAACC CgCTgGAAGG cGGcagccGt GGtGCaCCG GcGGtGGCTT	
Identity	GGTGTGAACC CcCTcGAAGG tGGatcgaG GGAAGCAGCC GgGGcGGCTT	
	GGTGTGAACC C-CT-GAAGG -GG-----G- GG-GC-CC-G G-GG-GGCTT	
synthetic ORF	501	555
wildtype ORF	tGTgCCgtct ATGCAAGGtG TtCCaGAaag CCCgtTTGCG CGtACCGGcG	
Identity	cGTcCCcagc ATGCAAGGAG TcCCGAGtC CCCtTtGCT CGgACCGGgG	
	-GT-CC---- ATGCAAGG-G T-CC-GA--- CCC-TT-GC- CG-ACCGG-G	
synthetic ORF	551	603
wildtype ORF	AaGGcCTGGA tATtcGtGGc AGCCAGGGcT TtCCGtaaaac cATggcgc	
Identity	AgGGaCTGGA cATaaGgGGA AGCCAGGGaT TcCCaTggga tATactct	
	A-GG-CTGGA -AT--G-GG- AGCCAGGG-T T-CC-T---- -AT-----	

Figure 15

1 GGGCATATGA GCCGTAGCGA ACGTCGTAAA GATCGTGGCG GCCGTGAAGA  
51 TATTCTGGAA CAGTGGGTGA GCGGCCGTAAGAAGTTAGAG GAATTGGAAC  
101 GTGATCTGCG TAAACTGAAA AAGAAGATTA AGAAACTGGA AGAAGATAAC  
151 CCGTGGTTGG GTAATATTAA AGGCATTATT GGCAAGAAAG ATAAAGATGG  
201 CGAAGGCGCG CCGCCGGCGA AGAAACTGCG TATGGATCAG ATGGAAATTG  
251 ATGCGGGCCC GCGTAAACGT CCGCTGCGTG GCGGCTTTAC CGATAAGGAA  
301 CGTCAGGACC ATCGTCGTCG TAAAGCGCTG GAAAACAAAC GTAAACAGCT  
351 GAGCAGCGGC GGCAAATCTC TGAGCCGTGA AGAAGAAGAA GAACTGAAAC  
401 GTCTGACCGA AGAAGATGAA AAACGTGAAC GTCGTATTGC AGGTCCATCT  
451 GTTGGTGGTG TGAACCCGCT GGAAGGCGGC AGCCGTGGTG CACCGGGCGG  
501 TGGCTTGTG CCGTCTATGC AAGGTGTTCC AGAAAGCCCG TTTGCGCGTA  
551 CCGCGAAGG CCTGGATATT CGTGGCAGCC AGGGCTTTCC GTAAACCATG  
601 GCGC

Figure 16

wildtype HDAg-S pRSDV5 plasmid Identity	1 MSRSEERRK DRGGREDILE QWVSGRKLE ELERDLRKLK KKIKKLEEDN MSRSEERRK DRGGREDILE QWVSGRKLE ELERDLRKLK KKIKKLEEDN MSRSEERRK DRGGREDILE QWVSGRKLE ELERDLRKLK KKIKKLEEDN
wildtype HDAg-S pRSDV5 plasmid Identity	49 PWLGNIKGII GKKDKDGEA PPAKKLRMDQ MEIDAGPRKR PLRGGFTDKE PWLGNIKGII GKKDKDGEA PPAKKLRMDQ MEIDAGPRKR PLRGGFTDKE PWLGNIKGII GKKDKDGEA PPAKKLRMDQ MEIDAGPRKR PLRGGFTDKE
wildtype HDAg-S pRSDV5 plasmid Identity	99 RQDHRRRKAL ENKRKQLSSG GKSLSRREEEE ELKRLTEEDE KRERRIAGPS RQDHRRRKAL ENKRKQLSSG GKSLSRREEEE ELKRLTEEDE KRERRIAGPS RQDHRRRKAL ENKRKQLSSG GKSLSRREEEE ELKRLTEEDE KRERRIAGPS
wildtype HDAg-S pRSDV5 plasmid Identity	149 VGGVNPLEGG SRGAPGGGFV PSMQGVPEP FARTGEGLDI RGSQGFP VGGVNPLEGG SRGAPGGGFV PSMQGVPEP FARTGEGLDI RGSQGFP VGGVNPLEGG SRGAPGGGFV PSMQGVPEP FARTGEGLDI RGSQGFP
	195

Figure 17

primer1

GGGCATATGAGCCGTAGCGAACGTCGTAAAGATCGTGGCGGCCGTGAAGATA  
TTCTGGAACAGTGGGTGAGCGGCCGTAAGAAGTTAGAGGAA

primer2

ATATTACCAACCACGGTTATCTTCTTCCAGTTCTTAATCTTCTTTT  
CAGTTACGCAGATCACGTTCCAATT CCTCTAACTTCTTACGGCC

primer3

TAACCCGTGGTTGGTAATATTAAAGGCATTATTGGCAAGAAAGATAAAG  
ATGGCGAAGGCGCGCCGCCGGCGAAGAAACTGCGTATGGATCAG

primer4

GATGGTCCTGACGTTCTTATCGTAAAGCCGCCACGCAGCGGACGTTA  
CGCGGGCCCGCATCAATTCCATCTGATCCATACGCAGTTCTT

primer5

ATAAGGAACGTCAGGACCATCGTCGTAAAGCGCTGGAAAACAAACGT  
AACACAGCTGAGCAGCGCGGCAAATCTCTGAGCCGTGAAGAAG

primer6

CAACAGATGGACCTGCAATACGACGTTACGTTTTCATCTTCTTCGGTC  
AGACGTTTCAGTTCTTCTTCA CGGCTCAGAGAT

primer7

TATTGCAGGTCCATCTGTTGGTGGTGTGAACCCGCTGGAAGGCAGCC  
GTGGCGCGCCGGCGGCGGCTTGTGCCGTATGCAAGGTGTTCCAGAA  
A

primer8

GCGCCATGGTTACGAAAGCCCTGGCTGCCACGAATATCCAGGCCTCG  
CCGGTACGCGAACGGCTTCTGGAACACCTTGCATAG

primer9

GGGCATATGAGCCGTAGCGA

primer10

GCGCCATGGTTACGGAAAG

Figure 18